

Working group report - Best practices for graduate student socio-ecological research

Organizers: Sydne Record, Yevgeniy Marusenko, and Michele Romolini

Summary

Our working group began with a 15 minute overview of research from a 2009 ASM working group entitled, "Benefits and Barriers to Cross-Site Urban Socio-Ecological Graduate Student Research." We disseminated results from this previous working group including information from surveys and interviews of graduate students on the LTER list serve. The slides from this presentation have been uploaded along with this report in a file entitled, "socioeco_recap.pdf." In this presentation we first presented the ISSE initiative. We then discussed how our surveys showed a skew towards more ecologically focused projects than social science or socio-eco projects and went over some of the conceptual and practical challenges faced by graduate students at the individual, project, and LTER network levels. Having identified the challenges to graduate student socio-ecological research with our previous working group, we expressed how we now wanted to consider best practices for graduate student socio-ecological research.

We spent the rest of the time brainstorming best practices for graduate student socio-ecological research with the goal of having something to write up for a network newsletter article and possibly a peer-reviewed manuscript. We came up with three categories of recommendations: 1) for incoming graduate students, 2) for current graduate students, and 3) for students in any stage of their graduate training. We list these below:

Advice for incoming graduate students:

- Create a committee with members from relevant disciplines. This can be helpful in making sure that you know material, terminology, and methods from different fields.
- Consider being co-advised by two advisers trained in different fields that are collaborative with one another.
- Be selective of the graduate program you select depending on your career goals. Be aware of if you want to be in a more 'siloe'd' department where everyone has their own specialty versus in a more 'holistic' program where everyone is expected to become a jack of all trades.

Advice for current graduate students:

- Become familiar with terms across disciplines by taking a breadth of classes from different disciplines, attending meetings of various fields, and going to seminars in multiple departments.
- If your primary adviser or committee members are not interdisciplinary, seek out other knowledgeable mentors.
- Consider applying for a Doctoral Dissertation Improvement Grant to add a more interdisciplinary chapter to your existing dissertation.

General advice for graduate students:

- Map out your socio-ecological network with a conceptual diagram. Re-evaluate that diagram throughout your thesis or dissertation and modify accordingly.
- Create detailed metadata, so that someone from another discipline who might want to access your data will be able to.
- Choose a couple of disciplines to be good at and collaborate for the rest.
- Know your stakeholders to make your research policy relevant and to identify salient terms. This will require talking with lots of people and making lots of contacts.
- Connect with graduate students with other skills. Seek out tight, focused student collaborations.

In addition to advice for graduate students, we also started to think of some ideas for advice to institutions. For instance, departments could encourage multi-author chapters for graduate students to encourage interdisciplinary collaborations among students.

We had an additional ad-hoc lunch meeting on Thursday in which we began to formulate some more concrete ideas for a paper that could use case studies from the LTER network to illustrate best practices for graduate student socio-ecological research offering advice to graduate students, advisers/committee members, and institutions.

Future goals

We are writing our findings up as an article for the LTER network newsletter. We plan to write a proposal to synthesize some of the existing data from the 2009 working group to incorporate into the case study of best practices manuscript described above.